

CLAIMS

1.

A computer system for viewing and switching of audio-video data, comprising:

a plurality of audio and video sources containing information referring to

5 an event;

a streaming server, streaming the contents of a first audio signal and a first video signal from the audio and video sources to a user;

10 a feed distributor, connected between the audio and video sources and the streaming server, the feed distributor controllably feeding the first audio signal and first video signal to the streaming server; and

15 a user-operated control unit communicating with the feed distributor and controlling operation of the feed distributor, so as to instruct the feed distributor to switch between video signals whereby, upon switching, the feed distributor feeds to the streaming server a second video signal which is different from the first video signal without altering the first audio signal.

2.

The system of claim 1, wherein the user-operated control unit is a remote control unit.

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3.

The system of claim 1, wherein the audio and video files are streamed over a network.

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4.

The system of claim 1, wherein the system is a client-server system, the control unit being located on the client side, and the streaming server and the feed distributor being located on the server side.

5.

The system of claim 4, wherein the streaming server and the feed distributor are located on the same machine.

5 6.

The system of claim 4, wherein the streaming server and the feed distributor are located on different machines.

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The system of claim 4, further comprising a plurality of client applications, each client application comprising a client-specific user-operated control unit communicating with the feed distributor on the server side and controlling operation of the feed distributor on the server side separately from the other client applications.

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The system of claim 4, wherein the streaming server sends different streams to different clients, one audio file and one video file being sent to each of said different clients, each of said different clients switchably controlling said video files independently from the other clients.

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The system of claim 1, wherein the plurality of audio and video files comprises a single audio file and a plurality of video files, each video file corresponding to a different point of view of the event.

10.

The system of claim 1, wherein video signals are differentially compressed before streaming and comprise key frames, and wherein the control unit instructs the

feed distributor to switch between the first video signal and the second video signal when a key frame of the second video signal is encountered.

11.

5 The system of claim 1, wherein the event is described through event parameters.

12.

The system of claim 11, wherein the user-operated control unit first requests the event parameters to the feed distributor and then instructs the streaming server
10 to start streaming.

13.

The system of claim 11, wherein said parameters comprise:

- 15 1) A number of different points of view of the event;
- 2) A textual description of each point of view;
- 3) A unique logic identifier of each point of view;
- 4) A size of a main screen window visualizing a current point of view;
- 5) A stream bandwidth;
- 6) A duration of the event; and
- 20 7) An initial point of view.

14.

The system of claim 13, wherein the logic identifier of each point of view is
25 locally defined.

15.

The system of claim 1, wherein:

the feed distributor comprises a server session manager, a theatre
descriptor and a stream reader;

the streaming server comprises a stream producer; and
the user-operated control unit comprises an interface builder.

16.

5 The computer system of claim 1, wherein said streaming server streams
additional audio and video signals, the additional audio and video signals being
output on secondary windows of a screen of the user, the secondary windows
being different from a main window of the screen of the user where said first
audio signal and said first video signal are output and on which switching
10 occurs.

17.

15 The computer system of claim 16, wherein said additional audio and video
signals occupy a bandwidth which is extremely reduced when compared with
the bandwidth occupied by said first audio and video signal.

18.

The computer system of claim 1, wherein said plurality of video sources
comprises a high number of cameras arranged in a matrix fashion.

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19.

The computer system of claim 7, wherein a user controls switching for a number
of other users.

25 **20.**

The computer system of claim 1, where switching occurs in a preprogrammed
way.

21.

A computer system for viewing and switching of audio-video data, comprising:

a plurality of audio and video sources containing information referring to an event;

5 a streaming server, streaming the contents of a first audio signal and a first video signal from the audio and video sources to a user;

a feed distributor, connected between the audio and video sources and the streaming server, the feed distributor controllably feeding the first audio signal and first video signal to the streaming server; and

10 a user-operated control unit communicating with the feed distributor and controlling operation of the feed distributor, so as to instruct the feed distributor to switch between audio signals whereby, upon switching, the feed distributor feeds to the streaming server a second audio signal which is different from the first audio signal without altering the first video signal.

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22.

The system of claim 21, wherein the user-operated control unit is a remote control unit.

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23.

The system of claim 21, wherein the audio and video files are streamed over a network.

24.

25 The system of claim 1, wherein the system is a client-server system, the control unit being located on the client side, and the streaming server and the feed distributor being located on the server side.

25.

The system of claim 24, wherein the streaming server and the feed distributor are located on the same machine.

5 26.

The system of claim 24, wherein the streaming server and the feed distributor are located on different machines.

27.

10 The system of claim 24, further comprising a plurality of client applications, each client application comprising a client-specific user-operated control unit communicating with the feed distributor on the server side and controlling operation of the feed distributor on the server side separately from the other client applications.

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28.

The system of claim 24, wherein the streaming server sends different streams to different clients, one audio file and one video file being sent to each of said different clients, each of said different clients switchably controlling said audio files independently from the other clients.

29.

The system of claim 21, wherein the plurality of audio and video files comprises a single video file and a plurality of audio files.

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30.

The system of claim 29, wherein each audio file corresponds to a different listening point of the event.

31.

The system of claim 29, wherein each audio file corresponds to a different audio source.

5 32.

The system of claim 21, wherein audio signals are differentially compressed before streaming and comprise key frames, and wherein the control unit instructs the feed distributor to switch between the first audio signal and the second audio signal when a key frame of the second audio signal is encountered.

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33.

The system of claim 21, wherein the event is described through event parameters.

34.

The system of claim 33, wherein the user-operated control unit first requests the event parameters to the feed distributor and then instructs the streaming server to start streaming.

35.

The system of claim 33, wherein said parameters comprise:

- 1) A number of different points of view of the event;
- 2) A textual description of each point of view;
- 3) A unique logic identifier of each point of view;
- 4) A size of a main screen window visualizing a current point of view;
- 5) A stream bandwidth;
- 6) A duration of the event; and
- 7) An initial point of view.

36.

The system of claim 35, wherein the logic identifier of each point of view is locally defined.

5 37.

The system of claim 21, wherein:

the feed distributor comprises a server session manager, a theatre descriptor and a stream reader;

the streaming server comprises a stream producer; and

10 the user-operated control unit comprises an interface builder.

38.

The system of claim 21, wherein said streaming server streams additional audio and video signals, the additional audio and video signals being output on secondary windows of a screen of the user, the secondary windows being different from a main window of the screen of the user where said first audio signal and said first video signal are output and on which switching occurs.

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20 The system of claim 38, wherein said additional audio and video signals occupy a bandwidth which is extremely reduced when compared with the bandwidth occupied by said first audio and video signal.

40.

25 The system of claim 21, wherein said plurality of video sources comprises a high number of cameras arranged in a matrix fashion.

41.

The system of claim 27, wherein a user controls switching for a number of other users.

5 **42.**

The system of claim 21, where switching occurs in a preprogrammed way.

43.

A computer-operated method for viewing and switching of audio-video data, 10 comprising the steps of:

providing a plurality of audio and video sources containing information referring to an event;

streaming contents of a first audio signal and a first video signal from the audio and video sources to a user;

15 controlling the streaming of video signals, so as to switch between video signals, streaming, upon switching, a second video signal which is different from the first video signal without altering the first audio signal.

44.

20 The method of claim 43, wherein the step of controlling is a step of remote controlling.

45.

25 The method of claim 43, wherein the audio and video signals are streamed over a network.

46.

The method of claim 43, wherein the step of controlling originates on a client side and the step of streaming originates on a server side.

47.

The method of claim 46, wherein different streams are sent to different clients, each of said different clients switchably controlling the video files independently
5 from the other clients.

48.

The method of claim 43, wherein the plurality of audio and video files comprises
10 a single audio file and a plurality of video files, each video file corresponding to a different point of view of the event.

49.

The method of claim 43, wherein video signals are differentially compressed before streaming and comprise key frames, and wherein the controlling step
15 switches between the first video signal and the second video signal when a key frame of the second video signal is encountered.

50.

A computer-operated method for viewing and switching of audio-video data,
20 comprising the steps of:

providing a plurality of audio and video sources containing information referring to an event;

streaming contents of a first audio signal and a first video signal from the audio and video sources to a user;

25 controlling the streaming of audio signals, so as to switch between audio signals, streaming, upon switching, a second audio signal which is different from the first audio signal without altering the first video signal.

51.

The method of claim 50, wherein the step of controlling is a step of remote controlling.

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52.

The method of claim 50, wherein the audio and video signals are streamed over a network.

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53.

The method of claim 50, wherein the step of controlling originates on a client side and the step of streaming originates on a server side.

54.

15

The method of claim 53, wherein different streams are sent to different clients, each of said different clients switchably controlling the audio files independently from the other clients.

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55.

The method of claim 50, wherein the plurality of audio and video files comprises a single video file and a plurality of audio files, each audio file corresponding to a different listening point of the event.

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56.

The method of claim 50, wherein the plurality of audio and video files comprises a single video file and a plurality of audio files, each audio file corresponding to a different audio source.

57.

The method of claim 50, wherein audio signals are differentially compressed before streaming and comprise key frames, and wherein the controlling step 5 switches between the first audio signal and the second audio signal when a key frame of the second audio signal is encountered.

58.

The system of claim 12, wherein said parameters comprise:

- 10 1) A number of different points of view of the event;
- 2) A textual description of each point of view;
- 3) A unique logic identifier of each point of view;
- 4) A size of a main screen window visualizing a current point of view;
- 5) A stream bandwidth;
- 15 6) A duration of the event; and
- 7) An initial point of view.